

CLAIMS

1. A piston assembly for an internal-combustion engine comprising:
 - a piston body including a top land portion and a ring groove formed on its periphery;
 - and
 - a piston ring having a U-shaped cross section, the piston ring including an upper leg portion, a lower leg portion, and a base portion connecting the upper and lower leg portions, the piston ring being attached to the top land portion of the piston body, wherein
 - an axial length from a boundary of the base portion of the piston ring and the upper leg portion to a lower surface of the lower leg portion is set to be larger than an axial length from an upper surface of the top land portion of the piston body to a lower surface of the ring groove into which the lower leg portion of the piston ring is fitted.
2. A piston assembly for an internal-combustion engine comprising:
 - a piston body including a top land portion and a ring groove formed on its periphery;
 - and
 - a piston ring having a U-shaped cross section, the piston ring including an upper leg portion, a lower leg portion, and a base portion connecting the upper and lower leg portions, the piston ring being attached to the top land portion of the piston body, wherein
 - at least one axial groove is provided on a thrust side of the top land portion of the piston body.
3. A piston assembly for an internal-combustion engine comprising:
 - a piston body including a top land portion and a ring groove formed on its periphery;
 - and
 - a piston ring having a U-shaped cross section, the piston ring including an upper leg portion, a lower leg portion, and a base portion connecting the upper and lower leg portions, the piston ring being attached to the top land portion of the piston body, wherein

the piston body further includes a second land portion in which a V-shaped annular groove is formed.

4. The piston assembly for an internal-combustion engine according to any one of claims 1 to 3, wherein

the piston ring has an upper periphery of a BF (barrel face) shape and a lower periphery formed as a straight or tapered contact face.